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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/888,002 | 06/21/2001 | Whonchee Lee | 108298515US3 | 9049 |

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EXAMINER

NGUYEN, DUNG V

ART UNIT

PAPER NUMBER

3723

DATE MAILED: 12/02/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/888,002

Applicant(s)

LEE ET AL.

Examiner

Dung V Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 November 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-64 is/are pending in the application.
- 4a) Of the above claim(s) 36-64 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-24 is/are allowed.
- 6) ☒ Claim(s) 25-27, 29, 30 and 32-35 is/are rejected.
- 7) ☒ Claim(s) 28 and 31 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2. 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Claims 36-64 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 5.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
3. Claims 26, 29 and 30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
4. Claim 26 recites the limitation "the first and second electrode" in line 4, and claim 29 recites the limitation "both first and second electrode" in line 2. There is insufficient antecedent basis for these limitations in the claims. First and second electrodes have not been cited previously.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United

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States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

6. Claims 25, 27 and 32-34 are rejected under 35 U.S.C. 102(e) as being anticipated by Easter et al (USPN 6,368,190). Easter et al disclose a method for removing electrically conductive material from a face of a microelectronic substrate comprising engaging the microelectronic substrate 38 with a polishing surface of a polishing pad 42, coupling the conductive material to a source of electrical potential 50, removing at least a portion of the conductive material from the microelectronic substrate 38 by passing a varying current through the conductive material while moving at least one of the microelectronic substrate and the polishing pad relative to the other and while the microelectronic substrate is engaged with the polishing pad 42, removing gas from a region adjacent to the microelectronic substrate 38 and an electrode 56 at least proximate to the microelectronic substrate while the conductive material is removed from the microelectronic substrate 38, biasing the polishing surface against the microelectronic substrate 38 with an electrolytic fluid, engaging the microelectronic substrate 38 with abrasive element disposed in an electrolytic fluid adjacent to the face of the microelectronic substrate 38, engaging the microelectronic substrate 38 with abrasive element fixedly attached to the polishing pad 42, rotating at least one of the microelectronic substrate 38 and the polishing pad 42 relative to the other while the microelectronic substrate is engaged with the polishing pad 42 (note Fig. 1 and 2, col. 1, line 55 to col. 2, line 58, col. 3, line 46 to col. 4, line 31).

Claim Rejections - 35 USC § 103

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7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Easter et al (USPN 6,368,190). Easter et al disclose the claimed invention as described above. However, Easter et al does not disclose expressly the polishing pad is elongated along an axis and the method comprises advancing the polishing pad along an axis. At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to use an elongated polishing pad and advancing the polishing pad along an axis because Applicant has not disclosed that elongated polishing pad provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicants invention to perform equally well with a rotary polishing disclosed by Easter et al or an elongated polishing pad. Therefore, it would have been an obvious matter of design choice to modify Easter et al to obtain the invention as specified in claim 35.

Allowable Subject Matter

9. Claims 1-24 are allowed.

10. Claims 28 and 31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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11. The following is a statement of reasons for the indication of allowable subject matter: the specific limitation "spacing a first conductive electrode apart from the microelectronic substrate, spacing a second conductive electrode apart from the microelectronic substrate; disposing an electrolyte between the microelectronic substrate and both the first and second electrodes" and "removing gas from a region between the microelectronic substrate and at least on of the first and second electrodes while the conductive material is removed from the microelectronic substrate" are not anticipated or made obvious by the examiner's opinion. For example, US 6,368,190 discloses that gas bubbles developed at an electrode will be released to the surrounding atmosphere. However, prior art of record fails to disclose or imply the above specific limitations.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Katsumoto et al, Uzoh and Sun et al are cited to show a method of remove conductive material from a microelectronic substrate.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung V Nguyen whose telephone number is 703-305-0036. The examiner can normally be reached on M-F, 6:30-3:00.

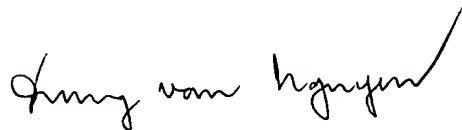
14. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph J Hail can be reached on 703-308-2687. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9302 for regular communications and 703-872-9303 for After Final communications.

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15. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1148.

DVN

November 27, 2002

A handwritten signature in cursive script, appearing to read "Dung van Nguyen", with a long, sweeping flourish extending from the end.

Dung Van Nguyen
Patent Examiner